

**SECRET****25 YEAR RE-REVIEW****12-A CAMERA SYSTEM**

This memorandum contains a brief description, numerical summary, and characteristics of the 12-A Camera System.

**PANORAMIC CAMERA**

The panoramic camera will operate in a vertical mode at altitudes between 65,000 and 75,000 feet. The camera will produce photography with an approximate scale of 1:35,000. Although a 55% overlap is provided, the unfavorable air base - height ratio (approximately 1 to 22) does not permit a favorable stereo model. The camera has a 70 degree scan angle, but vignetting at approximately 5 degrees from each end of the format permits approximately 60 degrees of useable coverage.

**CAMERA CHARACTERISTICS**

Lens	Petzval f/3.5
Focal Length	24 Inches
Scan Angle	70 Degrees
Shutter	Focal Plane
Film Load	70 mm x 7800 feet
Film Type	4404
Filter	OG 1 or Wratten 21
Scale at Nadir	1:35,000
Coverage per frame (60° scan)	LATERAL 13.3 NM FORWARD 1.1 NM
Total Coverage	FORWARD 1296 NM AREA 17,237 NM <sup>2</sup>
Number of Frames	3,000
Image Motion Compensation	Proportional to V/H ratio

**FORMAT AND TITLING**

Viewing a film positive, emulsion up, the titling will appear along the fiducial edge (the leading edge in direction of flight). Each frame will contain the following information in 12 point size lettering.

- |                                    |          |
|------------------------------------|----------|
| 1. Frame Number                    | 4 digits |
| 2. Mission Number                  | 4 digits |
| 3. <del>                    </del> |          |
| 4. Date of Mission                 |          |
| 5. Classification                  |          |

Frames will be numbered consecutively from head to tail on each mission.

**TRACKING CAMERA**

A tracking camera will be used to provide time data and imagery for correlation with the main panoramic camera. This camera is a 3" focal length, horizon to horizon (180° scan) panoramic camera with a format size of 2.37 inches x 0.435 inches. A clock will be superimposed on the format to provide the time of the exposure.

**SECRET**

GROUP 1  
Excluded from automatic  
downgrading and  
declassification